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<u>CLAIMS</u>

- 1. Device (1) for calibrating a system for double energy conical beam radiography, comprising an assembly of blocks of different thicknesses (2 to 5) of a first material, characterised in that the blocks are provided with recesses and in that the device further comprises inserts (7) to fill the recesses and comprising different height distributions (12, 13), the heights of the inserts and the thicknesses of the blocks being considered in an identical direction, between the first material and a second material.
- 2. Calibration device according to claim 1, characterised in that the blocks are assembled in stepped form and the inserts are divided into rows (8 to 11) in a lower layer (2) of the steps, the rows being located under different blocks.
- 3. Calibration device according to claim 2, characterised in that the steps have tapered faces (6).

4. Method for radiography with a double energy conical beam, comprising an estimation of thicknesses of materials of a radiographic subject by a digital combination of measurements of energy attenuation, involving calibration of coefficients (a, b) of the combination, characterised in that the calibration is measured by a radiography of a calibration device according to any one of the preceding claims, and in that scattered radiation affecting the radiography of

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the calibration device is estimated while providing an estimation criterion used afterwards to estimate scattered radiation affecting the radiography of the subject.